

MARKED-UP COPY OF AMENDMENTS TO THE SPECIFICATION

The first paragraph under the heading "Cross-Reference to Related Applications" on page 1 is amended as follows:

The present application claims priority to and the benefit of U.S. provisional patent application serial number 60/103,398, filed October 7, 1998 and U.S. provisional patent application serial number 60/118,794, filed February 4, 1999, the entire disclosure of these two provisional patent applications being incorporated herein by reference; the present application is a continuation of U.S.S.N. 09/300,585 filed April 27, 1999 and issued as U.S. patent 6,130,774, which in turn claims priority to U.S.S.N. 60/083,252 filed April 27, 1998; and the present application is also a continuation of U.S.S.N. 09/141,105, filed August 27, 1998 and issued as U.S. patent 6,067,185, which in turn claims priority to U.S.S.N. 60/057,133, filed August 28, 1997, U.S.S.N. 60/057,716, filed August 28, 1997, U.S.S.N. 60/057,799, filed August 28, 1997, U.S.S.N. 60/057,163, filed August 28, 1997, U.S.S.N. 60/057,122, filed August 28, 1997, U.S.S.N. 60/057,798, filed August 28, 1997, U.S.S.N. 60/057,118, filed August 28, 1997, U.S.S.N. 60/059,358, filed September 19, 1997, U.S.S.N. 60/065,630, filed November 18, 1997, U.S.S.N. 60/065,605, filed November 18, 1997, U.S.S.N. 60/066,147, filed November 19, 1997, U.S.S.N. 60/066,245, filed November 20, 1997, U.S.S.N. 60/066,246, filed November 20, 1997, U.S.S.N. 60/066,115, filed November 21, 1997, U.S.S.N. 60/066,334, filed November 21, 1997, U.S.S.N. 60/066,418, filed November 24, 1997, U.S.S.N. 60/071,371, filed January 15, 1998, U.S.S.N. 60/070,940, filed January 9, 1998, U.S.S.N. 60/072,390, filed January 9, 1998, U.S.S.N. 60/070,939, filed January 9, 1998, U.S.S.N. 60/070,935, filed January 9, 1998, U.S.S.N. 60/074,454, filed February 12, 1998,

Applicants: Albert et al.
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Filed: October 6, 1999
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U.S.S.N. 60/076,955, filed March 5, 1998, U.S.S.N. 60/076,959, filed March 5, 1998, U.S.S.N. 60/076,957, filed March 5, 1998, U.S.S.N. 60/076,978, filed March 5, 1998, U.S.S.N. 60/078,363, filed March 18, 1998, U.S.S.N. 60/083,252, filed April 27, 1998, U.S.S.N. 60/085,096, filed May 12, 1998, and U.S.S.N. 60/093,689, filed July 22, 1998. ~~The entire disclosure of each of these provisional patent applications is incorporated herein by reference.~~

Clean Copy of All Pending Claims

102. (New) An encapsulated electrophoretic element comprising an electrophoretic ink, the electrophoretic ink comprising a plurality of non-spherical capsules dispersed in a binder, at least one of the capsules being enclosed by a membrane, wherein the plurality of capsules form substantially a single layer when the ink is disposed on a substrate.
103. (New) The element of claim 102 wherein the capsules are substantially uniform in size.
104. (New) The element of claim 102 wherein the capsules are substantially planar on at least one side proximate the substrate.
105. (New) The element of claim 102 wherein the capsules are closely-packed.
106. (New) The element of claim 102 wherein the binder comprises a binder solid and wherein a ratio of the mass of the binder solid to the mass of the capsules is between about 1:2 and about 1:20.
107. (New) The element of claim 102 wherein at least a portion of the element has an optically active fraction of at least 70%.
108. (New) The element of claim 102 wherein the single layer of capsules forms a film.
109. (New) The element of claim 108 further comprising a layer of material substantially filling any interstices formed within the film.
110. (New) The element of claim 109 wherein the layer of material is substantially planar on a side opposite the film.
111. (New) The element of claim 109 wherein the capsules, the binder, and the layer of material comprise a stratum having a substantially uniform thickness.
112. (New) The element of claim 111 wherein the stratum has a thickness of about 10 μm to about 500 μm .

113. (New) The element of claim 109 wherein the layer of material comprises the binder.
114. (New) The element of claim 109 wherein the layer of material comprises an insulator.
115. (New) The element of claim 109 wherein the layer of material is tacky during at least one of prior to, during, and after substantially filling the interstices within the film.
116. (New) The element of claim 109 wherein the layer of material is in a liquid state during at least one of prior to, during, and after substantially filling the interstices within the film.
117. (New) The element of claim 109 wherein the capsules, the binder, and the layer of material comprise a stratum that is substantially free from voids.
118. (New) The element of claim 109 wherein the layer of material has a thickness of less than or equal to about 50 μm .
119. (New) The element of claim 109 wherein the layer of material comprises a conductor.
120. (New) The element of claim 109 wherein the layer of material comprises a semiconductor.
121. (New) The element of claim 109 wherein the layer of material comprises an adhesive containing a material selected from the group consisting of carbon particles, gold particles, aluminum particles, platinum particles, silver particles, plated polymer spheres, plated glass spheres, and indium tin oxide particles.
122. (New) The element of claim 109 wherein the layer of material comprises an adhesive containing a material selected from the group consisting of polyacetylene, polyaniline, polypyrrole, polyethylene dioxythiophene, and polythiophene.
123. (New) The element of claim 109 further comprising a rear substrate disposed adjacent the layer of material.
124. (New) The element of claim 123 wherein the layer of material is associated with the film before a lamination procedure of the film is completed.

125. (New) The element of claim 123 wherein the layer of material is associated with the rear substrate before a lamination procedure of the film is completed.
126. (New) The element of claim 123 wherein the rear substrate comprises a material selected from the group consisting of a polymeric material, a glass, and a metal.
127. (New) The element of claim 123 wherein the rear substrate comprises at least one electrode.
128. (New) The element of claim 123 wherein the rear substrate comprises at least one transistor.
129. (New) The element of claim 128 wherein the transistor comprises a silicon-based material.
130. (New) The element of claim 128 wherein the transistor comprises an organic material.
131. (New) The element of claim 123 wherein the rear substrate comprises at least one diode.
132. (New) The element of claim 102 wherein the substrate comprises a polymeric material.
133. (New) The element of claim 102 wherein the substrate comprises at least one electrode.
134. (New) The element of claim 133 wherein the electrode comprises indium tin oxide.
135. (New) The element of claim 102 wherein the substrate comprises a polyester film.
136. (New) The element of claim 102 wherein the substrate has a thickness of about 25 μm to about 500 μm .
137. (New) The element of a claim 102 wherein the membrane has a thickness from about 0.2 μm to about 10 μm .
138. (New) The element of claim 102 wherein at least one of the capsules includes a suspending fluid and at least one species of electrophoretic particle.

139. (New) The element of claim 102 wherein at least one of the capsules includes at least two species of electrophoretic particles, wherein an optical property of a first species of particle is different from a second species of particle.

140. (New) The element of claim 102 wherein the binder comprises a curable material.

141. (New) The element of claim 102 wherein the capsules are of more than one shape.

142. (New) An encapsulated electrophoretic element comprising an electrophoretic ink, the electrophoretic ink comprising a plurality of non-spherical capsules dispersed in a binder comprising a binder solid, at least one of the capsules being enclosed by a membrane, wherein the plurality of capsules form substantially a single layer when the ink is disposed on a substrate and the binder and wherein a ratio of a mass of the binder solid to a mass of the capsules is between about 1:2 and about 1:20.

143. (New) An encapsulated electrophoretic element comprising an electrophoretic ink, the electrophoretic ink comprising a plurality of non-spherical capsules dispersed in a binder, at least one of the capsules being enclosed by a membrane, wherein the plurality of capsules form substantially a single layer when the ink is disposed on a substrate and at least a portion of the element has an optically active fraction of at least 70%.

144. (New) An electrophoretic element comprising a plurality of non-spherical capsules wherein the plurality of capsules form substantially a single layer on a substrate, at least one of the capsules comprising at least one electrophoretic particle dispersed in a mixture of two or more suspending fluids.

145. (New) The element of claim 144 wherein the element comprises a polymer-dispersed electrophoretic display and the at least one of the capsules comprises a fluid-filled cavity in a matrix.

146. (New) The element of claim 144 wherein the element comprises an encapsulated electrophoretic display wherein the at least one of the capsules is enclosed in a membrane.

147. (New) The element of claim 144 wherein there is substantially no binder.
148. (New) The element of claim 144 wherein the capsules are closely-packed.
149. (New) The element of claim 144 wherein the capsules are substantially uniform in size.
150. (New) The element of claim 144 wherein the capsules are of more than one shape.
151. (New) The element of claim 144 wherein the capsules are substantially planar on at least one side proximate the substrate.
152. (New) The element of claim 144 further comprising a binder substantially filling any interstices formed within the single layer of capsules.
153. (New) The element of claim 144, wherein the element further comprises a binder comprising a material selected from the group consisting of resins, evaporative liquids, water-soluble polymers, water-dispersed polymers, oil-soluble polymers, thermoset polymers, thermoplastic polymers, radiation-cured polymers, ultraviolet-cured polymers, water-reducible monomers, and water-reducible oligomers.
154. (New) The element of claim 153, wherein the binder comprises a material selected from the group consisting of polysaccharides, polyvinyl alcohols, polyurethanes, acrylics, polyesters, polycarbonates, silicones, and epoxies.
155. (New) The element of claim 144, wherein at least one of the suspending fluids is selected from the group consisting of halogenated solvents, saturated hydrocarbons, silicone oils, low molecular weight halogen-containing polymers, epoxides, vinyl ethers, and aromatic hydrocarbons.
156. (New) The element of claim 155, wherein the suspending fluid is selected from the group consisting of toluene, naphthalene, paraffinic liquids, and poly(chlorotrifluoroethylene) polymers.

157. (New) The element of claim 144, wherein at least one of the suspending fluids further comprises an additive selected from the group consisting of surface modifiers, dyes, surfactants, charge control agents, and stabilizers.

158. (New) The element of claim 157, wherein the additive is selected from the group consisting of azo dyes, anthraquinone dyes, triphenylmethane dyes and sodium dodecylsulfate.

159. (New) The element of claim 144, wherein the electrophoretic particle is selected from the group consisting of neat pigments, dyed pigments, polymers, composites of pigment and polymer, scattering pigments, absorbing pigments, luminescent particles, and retroreflective particles.

160. (New) The element of claim 144, wherein said at least one electrophoretic particle is selected from the group consisting of zinc sulfide particles and titania particles.

161. (New) The element of claim 160, wherein said at least one particle comprises a metal oxide-coated titania particle.

162. (New) The element of claim 144, wherein said at least one electrophoretic particle comprises a charge control agent.

163. (New) The element of claim 144, wherein said display comprises at least one transparent electrode.

164. (New) The element of claim 144, wherein said display comprises a black-and-white display.

165. (New) The element of claim 144, wherein said display comprises a multi-color display.

166. (New) The element of claim 144, wherein said display is flexible.
